

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Previously presented) A digital broadcast receiving system comprising:
 - a receive and demodulation section by which a digital broadcast signal received from the exterior is demodulated and outputted as a packet stream;
 - a packet filter that filters a predetermined packet in a plurality of packets composing said packet stream;
 - a storing unit by which said packet stream passing through said packet filter is stored;
 - an information table generator that generates, with respect to a PAT (program association table) in various information tables contained in said packet stream, a new PAT containing information only on a program to be stored in said storing unit; and
 - an information table substitution unit by which said new PAT is substituted for an information table corresponding to said PAT contained in said packet stream transmitted, said information table substitution unit being disposed between said receive and demodulation section and said storing unit,
- wherein said packet filter filters, of a plurality of PMTs (program mapping tables) contained in said packet stream transmitted, an information table other than a PMT related to said program to be stored,

wherein,

said information table generator has a function with which a specific value is substituted for the PID value of a packet for transmitting an ES (Elementary Stream) described in said PMT, thereby to generate said PMT;

said information table substitution unit has a function with which said specific value is substituted for the PID value of a packet for transmitting an ES contained in said packet stream transmitted; and

said digital broadcast receiving system further comprising a recording section for retaining said specific value such that subsequent reproduction of said packet stream may be performed without first verifying the contents of the PMT and PAT.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Original) The digital broadcast receiving system according to claim 1, wherein,
in said information table generator, a new CAT (Conditional Access Table) containing the encrypted state of said digital broadcast signal is generated with respect to a CAT in said variety of information tables; and

in said information table substitution unit, said new CAT is substituted for a CAT contained in said packet stream transmitted.

7. (Original) The digital broadcast receiving system according to claim 1, further comprising:

an information table extractor that extracts at least one of an SDT (Service Description Table) and an EIT (Event Information Table) in said various information tables contained in said packet stream transmitted; and

a recording section that records information contained in either or both of said SDT and said EIT to be extracted by said information table extractor, and wherein,

said packet filter filters, of said SDT and said EIT contained in said packet stream transmitted, one or both which is (are) extracted by said information table extractor.

8. (Original) The digital broadcast receiving system according to claim 1, further comprising:

a control section that controls the operation of receiving said digital broadcast signal; and

an information table extractor by which, from said packet stream outputted from said receive and demodulation section, a specific SI (Service Information) table in said various information tables is extracted to inform its contents to said control section, and wherein, said packet filter filters said specific SI table contained in said packet stream transmitted.

9. (Original) The digital broadcast receiving system according to claim 1, further comprising a timer for controlling the transmission intervals of said various information tables, when said information table substitution unit performs substitution of said various information tables.

10. (Original) The digital broadcast receiving system according to claim 9, wherein said information table substitution unit performs substitution of said various information tables at the maximum allowable transmission intervals specified for each of said various information tables.

11. (Previously Presented) A digital broadcast receiving system comprising:

a receive and demodulation section by which a digital broadcast signal received from the exterior is demodulated and outputted as a packet stream;

a packet filter that filters a predetermined packet in a plurality of packets composing said packet stream; and

a storing unit by which said packet stream passing through said packet filter is stored, wherein,

said packet filter filters, of said plurality of packets, packets other than a packet for transmitting the data related to a program to be stored in said storing unit;

said digital broadcast receiving system further comprising a first recording section for recording a program information index generated based on information contained in various information tables which are extracted from said packet stream outputted from said receive and demodulation section,

wherein said program information index is different from said various information tables, an information table generator that generates a new information table with respect to a specific information table in said various information tables filtered by said packet filter; and

an information table insertion unit for inserting said new information table to said packet stream transmitted, disposed between said receive and demodulation section and said storing unit,

wherein a specific value is substituted for the PID value of a packet transmitting an ES described in a PMT, in said program information index

a second recording section for retaining the specific value such that subsequent reproduction of said packet stream may be performed without first verifying the contents of the PMT and a PAT; and

said information table insertion unit has a function with which said specific value is substituted for the PID value of a packet transmitting an ES contained in said packet stream transmitted.

12. (Cancelled)

13. (Cancelled)

14. (Original) The digital broadcast receiving system according to claim 11, wherein said program information index contains information described in at least one of an SDT and an EIT.

15. (Original) The digital broadcast receiving system according to claim 14, wherein said program information index further contains information described in a BAT (Bouquet Association Table).

16. (Currently amended) A digital broadcast receiving system comprising:

a receive and demodulation section by which a digital broadcast signal received from the exterior is demodulated and outputted as a packet stream;

a packet filter that filters a predetermined packet in a plurality of packets composing said packet stream;

a record and reproduction unit by which said packet stream passing through said packet filter is recorded, and said recorded packet stream is reproduced and outputted;

an information table generator for generating a predetermined information table;

an output information insertion unit by which said predetermined information table is inserted to said packet stream outputted from said record and reproduction unit, thereby to output it as a new packet stream; and

a circuit changing switch that performs a selective switching between said packet stream outputted from said receive and demodulation section, and said new packet stream outputted from said output information insertion unit, thereby performing its transmission to a digital output section wherein,

said packet stream recorded in said record and reproduction unit does not conform to a predetermined standard, and said new packet stream is made to conform to said predetermined standard by inserting said predetermined information table, wherein,

said information table generator has a function with which the PID value of an ES to be described is subjected to an arbitrary alteration, to generate said predetermined information table; and

said output information insertion unit has a function with which the value obtained by said alteration to said PID value is substituted for the PID value of a packet transmitting an ES contained in said packet stream transmitted wherein,

said information table generator has a function with which the value of the a program number of a program recorded in said record and reproduction unit is subjected to an arbitrary alteration, to generate said predetermined information table; and

said output information insertion unit has a function with which the value obtained by said alteration to said program number is provided to said packet stream transmitted.

17. (Canceled)

18. (Cancelled)

19. (Original) The digital broadcast receiving system according to claim 16, wherein when said new packet stream is transmitted from said output information insertion unit via said circuit changing switch to said digital output section, at least one of an SDT, EIT, BAT, PCAT (Partial Content Announcement Table), TDT (Time Data Table) and TOT (Time Offset Table) is multiplexed with said new packet stream, and then outputted.

20. (Previously Presented) A digital broadcast receiving system comprising:

a receive and demodulation section by which a digital broadcast signal received from the exterior is demodulated and outputted as a packet stream;

a packet filter that filters a predetermined packet in a plurality of packets composing said packet stream;

an information table generator that generates, with respect to a PAT (program association table) in various information tables contained in said packet stream, a new PAT containing information only on a program to be recorded or reproduced; and

an information table substitution unit by which said new PAT is substituted for an information table corresponding to said PAT contained in said packet stream transmitted,

wherein said packet filter filters, of a plurality of PMTs (program mapping tables) contained in said packet stream transmitted, an information table other than a PMT related to said program to be recorded or reproduced,

wherein,

said information table generator has a function with which a specific value is substituted for the PID value of a packet for transmitting an ES (Elementary Stream) described in said PMT, thereby to generate said PMT;

said information table substitution unit has a function with which said specific value is substituted for the PID value of a packet for transmitting an ES contained in said packet stream transmitted; and

said digital broadcast receiving system further comprising a recording section for retaining said specific value such that subsequent reproduction of said packet stream may be performed without first verifying the contents of the PMT and PAT.

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Previously Presented) The digital broadcast receiving system according to claim 20, wherein,

in said information table generator, a new CAT (Conditional Access Table) containing the encrypted state of said digital broadcast signal is generated with respect to a CAT in said variety of information tables; and

in said information table substitution unit, said new CAT is substituted for a CAT contained in said packet stream transmitted.

26. (Previously Presented) The digital broadcast receiving system according to claim 20, further comprising:

an information table extractor that extracts at least one of an SDT (Service Description Table) and an EIT (Event Information Table) in said various information tables contained in said packet stream transmitted; and

a recording section that records information contained in either or both of said SDT and said EIT to be extracted by said information table extractor, and wherein,

said packet filter filters, of said SDT and said EIT contained in said packet stream transmitted, one or both which is (are) extracted by said information table extractor.

27. (Previously Presented) The digital broadcast receiving system according to claim 20, further comprising:

a control section that controls the operation of receiving said digital broadcast signal; and

an information table extractor by which, from said packet stream outputted from said receive and demodulation section, a specific SI (Service Information) table in said various information tables is extracted to inform its contents to said control section, and wherein,

said packet filter filters said specific SI table contained in said packet stream transmitted.

28. (Previously Presented) The digital broadcast receiving system according to claim 20, further comprising a timer for controlling the transmission intervals of said various information tables, when said information table substitution unit performs substitution of said various information tables.

29. (Previously Presented) The digital broadcast receiving system according to claim 28, wherein said information table substitution unit performs substitution of said various information tables at the maximum allowable transmission intervals specified for each of said various information tables.

30. (Previously Presented) A digital broadcast receiving system comprising:

a receive and demodulation section by which a digital broadcast signal received from the exterior is demodulated and outputted as a packet stream; and

a packet filter that filters a predetermined packet in a plurality of packets composing said packet stream;

wherein,

said packet filter filters, of said plurality of packets, packets other than a packet for transmitting the data related to a program to be recorded or reproduced; and

said digital broadcast receiving system further comprising a first recording section for recording a program information index generated based on information contained in various information tables which are extracted from said packet stream outputted from said receive and demodulation section,

wherein said program information index is different from said various information tables, an information table generator that generates a new information table with respect to a specific information table in said various information tables filtered by said packet filter; and

an information table insertion unit, operatively connected to said receive and demodulation section, for inserting said new information table to said packet stream transmitted,

wherein a specific value is substituted for the PID value of a packet transmitting an ES described in a PMT, in said program information index

a second recording section for retaining the specific value such that subsequent reproduction of said packet stream may be performed without first verifying the contents of the PMT and a PAT; and

said information table insertion unit has a function with which said specific value is substituted for the PID value of a packet transmitting an ES contained in said packet stream transmitted.

31. (Previously Presented) The digital broadcast receiving system according to claim 30, wherein said program information index contains information described in at least one of an SDT and an EIT.

32. (Previously Presented) The digital broadcast receiving system according to claim 31, wherein said program information index further contains information described in a BAT (Bouquet Association Table).

33. (Previously presented) A method of receiving a digital broadcast, comprising the steps of:
demodulating a digital broadcast signal received from the exterior and outputting as a packet stream;

filtering a predetermined packet in a plurality of packets composing said packet stream;

generating, with respect to a PAT (program association table) in various information tables contained in said packet stream, a new PAT containing information only on a program to be recorded or reproduced; and

substituting said new PAT for an information table corresponding to said PAT contained in said packet stream transmitted, wherein

in said filtering step, of a plurality of PMTs (program mapping tables) contained in said packet streams transmitted, an information table other than a PMT related to said program to be recorded or reproduced is filtered,

in said generating step, a specific value is substituted for the PID value of a packet for transmitting ES (Elementary Stream) described in said PMT to generate said PMT, and

in said substituting step, said specific value is substituted for the PID value of a packet for transmitting an ES contained in said packet stream transmitted,

said method of receiving a digital broadcast further comprising the step of retaining said specific value such that subsequent reproduction of said packet stream may be performed without first verifying the contents of the PMT and PAT.

34. (Previously Presented) The method of receiving a digital broadcast according to claim 33, further comprising the steps of:

extracting at least one of an SDT (Service Description Table) and an EIT (Event Information Table) in said various information tables contained in said packet stream transmitted; and

recording information contained in either or both of said SDT and said EIT to be extracted in said extracting step; wherein

in said filtering step, one or both of said SDT and said EIT contained in said packet stream transmitted which is (are) extracted in said extracting step is (are) filtered.

35. (Previously presented) A digital broadcast receiving system comprising:

a receive and demodulation section by which a digital broadcast signal received from the exterior is demodulated and outputted as a packet stream;

a packet filter that filters a predetermined packet in a plurality of packets composing said packet stream;

a reproducing unit by which said packet stream passing through said packet filter is reproduced;

an information table generator that generates, with respect to a PAT (program association table) in various information tables contained in said packet stream, a new PAT containing information only on a program to be reproduced by said reproducing unit; and

an information table substitution unit by which said new PAT is substituted for an information table corresponding to said PAT contained in said packet stream transmitted, said information table substitution unit being disposed between said receive and demodulation section and said reproducing unit,

wherein said packet filter filters, of a plurality of PMTs (program mapping tables) contained in said packet stream transmitted, an information table other than a PMT related to said program to be reproduced, wherein,

said information table generator has a function with which a specific value is substituted for the PID value of a packet for transmitting an ES (Elementary Stream) described in said PMT, thereby to generate said PMT;

said information table substitution unit has a function with which said specific value is substituted for the PID value of a packet for transmitting an ES contained in said packet stream transmitted; and

said digital broadcast receiving system further comprising a recording section for retaining said specific value such that said reproducing unit may reproduce the packet stream without first verifying the contents of said PMT and PAT.

36. (Previously Presented) The digital broadcast receiving system according to claim 35, wherein,

in said information table generator, a new CAT (Conditional Access Table) containing the encrypted state of said digital broadcast signal is generated with respect to a CAT in said variety of information tables; and

in said information table substitution unit, said new CAT is substituted for a CAT contained in said packet stream transmitted.

37. (Previously Presented) The digital broadcast receiving system according to claim 35, further comprising:

an information table extractor that extracts at least one of an SDT (Service Description Table) and an EIT (Event Information Table) in said various information tables contained in said packet stream transmitted; and

a recording section that records information contained in either or both of said SDT and said EIT to be extracted by said information table extractor, and wherein,

said packet filter filters, of said SDT and said EIT contained in said packet stream transmitted, one or both which is (are) extracted by said information table extractor.

38. (Previously Presented) The digital broadcast receiving system according to claim 35, further comprising:

a control section that controls the operation of receiving said digital broadcast signal; and
an information table extractor by which, from said packet stream outputted from said receive and demodulation section, a specific SI (Service Information) table in said various information tables is extracted to inform its contents to said control section, and wherein,

said packet filter filters said specific SI table contained in said packet stream transmitted.

39. (Previously Presented) The digital broadcast receiving system according to claim 35, further comprising a timer for controlling the transmission intervals of said various information tables, when said information table substitution unit performs substitution of said various information tables.

40. (Previously Presented) The digital broadcast receiving system according to claim 39, wherein said information table substitution unit performs substitution of said various information tables at the maximum allowable transmission intervals specified for each of said various information tables.

41. (Previously Presented) A digital broadcast receiving system comprising:

a receive and demodulation section by which a digital broadcast signal received from the exterior is demodulated and outputted as a packet stream;

a packet filter that filters a predetermined packet in a plurality of packets composing said packet stream; and

a reproducing unit by which said packet stream passing through said packet filter is reproduced, wherein,

said packet filter filters, of said plurality of packets, packets other than a packet for transmitting the data related to a program to be reproduced in said reproducing unit;

said digital broadcast receiving system further comprising a recording section for recording a program information index generated based on information contained in various

information tables which are extracted from said packet stream outputted from said receive and demodulation section,

wherein said program information index is different from said various information tables,
an information table generator that generates a new information table with respect to a specific information table in said various information tables filtered by said packet filter; and
an information table insertion unit for inserting said new information table to said packet stream transmitted, disposed between said receive and demodulation section and said reproducing unit,

wherein a specific value is substituted for the PID value of a packet transmitting an ES described in a PMT, in said program information index such that said reproducing unit may reproduce the packet stream without first verifying the contents of the PMT and a PAT; and

said information table insertion unit has a function with which said specific value is substituted for the PID value of a packet transmitting an ES contained in said packet stream transmitted.

42. (Previously Presented) The digital broadcast receiving system according to claim 41, wherein said program information index contains information described in at least one of an SDT and an EIT.

43. (Previously Presented) The digital broadcast receiving system according to claim 42, wherein said program information index further contains information described in a BAT (Bouquet Association Table).